

REMARKS

Claims 38-57 are now in the application.

In the Office Action, the Examiner applied the Terk patent. The Terk patent discloses a signal receiver 26 that provides a microprocessor 22 with the information content of a wireless channel selection signal 30. The microprocessor 22 decodes the signal to identify the selected broadcast channel. The microprocessor 22 then sends signals to a motor driver 20 for rotating a motor 16 and an antenna 10 so that the antenna assumes a predetermined optimal orientation for the selection broadcast channel. This predetermined optimal orientation is stored in a memory 46. A position encoder 34 provides a feedback signal to the microprocessor 22 so as to inform the microprocessor 22 of the actual orientation of antenna 10.

The Terk patent, however, describes no mechanism to improve the received signal based on position as recited in independent claims 38 and 48.

Accordingly, the Terk patent does not anticipate independent claims 38 and 48.

Moreover, the Terk patent does not suggest the invention of independent claims 38 and 48. For example, the disclosure of the Terk patent stops with the positioning of the antenna and does not deal with the

processing of the received signal to its reception based on position.

Similarly, the Holmes patent does not suggest the invention of independent claims 38 and 48. The Holmes patent is directed to ghost cancellation. A variable gain amplifier 80 is part of a circuit that generates a pseudo ghost. This pseudo ghost is used to cancel the ghost. While this function is meant to improve the signal, there is no suggestion that this function is related to antenna orientation or is position dependent. Therefore, there is no suggestion that this function should be combined with antenna positioning and should be made position dependent.

The Ma patent discloses a satellite antenna system that drives an antenna until an optimal orientation of the antenna with respect to a signal source is detected. The optimal orientation for the antenna with respect to the signal source is defined as the orientation that has the lowest noise with respect to the signal source. This orientation is stored. There is no disclosure or suggestion in the Ma patent of any processing of the received signal to improve its reception based on position.

Accordingly, because there is no suggestion to process the received signal based on position so as to

improve reception of the received signal, independent claims 38 and 48 are not obvious.

Accordingly, because independent claims 38 and 48 are patentable, the dependent claims are likewise patentable.

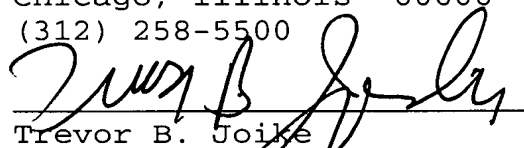
Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned **"VERSION WITH MARKINGS TO SHOW CHANGES MADE."**

In view of the above, it is clear that the claims of the present application patentably distinguish over the art applied by the Examiner. Accordingly, allowance of these claims and issuance of the above captioned patent application are respectfully requested.

Respectfully submitted,

Schiff, Hardin & Waite  
6600 Sears Tower  
233 South Wacker Drive  
Chicago, Illinois 60606  
(312) 258-5500

By:

  
Trevor B. Jolke  
Reg. No: 25,842

March 3, 2003

Application No. 09/595,068

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**IN THE CLAIMS**

The following claims are added by this amendment:

38. A system for automatically positioning an antenna comprising:

a motor arranged to be coupled to the antenna;  
and,

a controller coupled to the motor, wherein the controller is arranged to control the motor in response to selection of a channel so as to automatically drive the antenna to a position at which the antenna is aimed at a source of a signal associated with the selected channel, wherein the controller operates the motor to drive the antenna to the position based upon a location of the signal source and a location of the antenna, wherein the controller is arranged to receive the signal from the positioned antenna and to process the received signal so as to improve reception of the received signal, and wherein the processing of the received signal is dependent upon the position.

39. The system of claim 38 wherein the controller stores a location of a known offending source, and where the controller processes the received signal by reducing reception of a signal from the known offending source based upon the stored location of the known offending source.

40. The system of claim 39 wherein the antenna has a reception path between the antenna and the signal source, and wherein the controller blocks reception of the signal from the known offending source only if the known offending source is effectively in the reception path between the antenna and the signal source.

41. The system of claim 39 wherein the controller includes an FM trap to notch out a signal from the known offending source.

42. The system of claim 38 wherein the controller includes a variable gain amplifier electrically coupled between the antenna and a receiver tuned to the channel selected by the user, wherein the controller processes the received signal by controlling the gain of the variable gain amplifier according to the

location of the signal source so as to improve reception of the received signal.

43. The system of claim 38 wherein the location of the antenna is supplied by a global position sensor.

44. The system of claim 38 wherein the controller is arranged to operate the motor in response to a compass reading derived from a compass.

45. The system of claim 38 wherein the controller is arranged to cancel ghosts depending upon the position of the antenna.

46. The system of claim 38 wherein the antenna comprises first and second antennas, and wherein the controller is arranged to switch between the first and second antennas depending upon the channel selected by the user.

47. The system of claim 38 wherein the location of the signal source and the location of the antenna are global locations.

48. A method of automatically positioning an antenna having a motor coupled thereto comprising:

controlling the motor so as to drive the motor automatically in response to selection of a channel to a position at which the antenna is aimed at a source of a signal associated with the selected channel;

receiving a signal from the positioned antenna;  
and,

processing the received signal so as to improve reception of the received signal, wherein the processing of the received signal is dependent upon the position.

49. The method of claim 48 further comprising storing a location of a known offending source, wherein the processing of the received signal comprises reducing reception of a signal from the known offending source based upon the stored location of the known offending source.

50. The method of claim 49 wherein the antenna has a reception path between the antenna and the signal source, and wherein the reducing of reception of a signal from the known offending source comprises blocking reception of the signal from the known offending source

only if the known offending source is effectively in the reception path between the antenna and the signal source.

51. The method of claim 49 wherein the reducing of reception of a signal from the known offending source comprises notching out a signal from the known offending source.

52. The method of claim 48 wherein the processing of the received signal comprises controlling the gain of a variable gain amplifier according to the location of the signal source so as to improve reception of the received signal.

53. The method of claim 48 further comprising supplying the location of the antenna by way of a global position sensor.

54. The method of claim 48 wherein the controlling of the motor comprises driving the motor in response to a compass reading derived from a compass.

55. The method of claim 48 further comprising canceling ghosts depending upon the position of the antenna.



56. The method of claim 48 wherein the antenna comprises first and second antennas, and wherein the method further comprises switching between the first and second antennas depending upon the channel selected by the user.

57. The method of claim 48 wherein the location of the signal source and the location of the antenna are global locations.

Claims 1-37 are canceled.